

benefit obligation and the plan assets as of the date of the financial statements.

3. Method of Calculating Prior Service Cost and Current Service Cost

Net periodic postretirement benefit cost consists of several components: current year cost, amortization of prior service cost, amortization of transition obligation, amortization of gain/loss, expected return on assets and interest cost. Pacific Bell and Nevada Bell calculate these components in determining their net periodic postretirement benefit cost (see sections c through f of this question). Current year cost or "service cost" is the portion of the expected OPEB benefit obligation attributed to employee service during the year. Current year cost is the actuarial present value of the expected benefits attributable to the year of service.<sup>19</sup>

Prior year costs result from plan amendments which increase or decrease benefits. An increase or decrease in the expected benefit obligation attributable to employees' service rendered in prior periods is treated as a prior year cost.<sup>20</sup>

A significant change from the SFAS-106 Exposure Draft on Employer's Accounting for OPEB is that SFAS-106 requires OPEB accounting to reflect the terms of the substantive plan, i.e., the written plan as adjusted to reflect past practice or

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<sup>19</sup> Id., §47, p. 17.

<sup>20</sup> Id., §54, p. 19.

communicated future changes. The final statement specifically requires the calculation of current year costs and prior service costs to reflect such a substantive plan.<sup>21</sup> Pacific Bell and Nevada Bell reflect the substantive plan in their calculations.

#### 4. Employee Benefit Vesting Requirements

Full eligibility for benefits is currently achieved by meeting certain age, service, or age and service requirements.

Although technically OPEB benefits do not vest, SFAS-106 calculations require employers to recognize that OPEB benefits will be paid to those who meet benefit eligibility requirements. At Pacific Bell and Nevada Bell, employees currently are eligible for OPEB only upon qualifying for service or disability pension retirement.

#### 5. Recognition of Gains and Losses

Gains and losses are changes in plan liabilities or assets due to differences between actual and assumed experience or to changes in assumptions.

At a minimum, SFAS-106 requires amortization of any unrecognized net gain or loss exceeding 10% of the greater of the accumulated postretirement benefit obligation ("APBO") or the market-related value of plan assets, as a part of the net postretirement benefit cost for the year. This is known as the

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<sup>21</sup> Id., §§47 and 54, pp. 17, 19.

corridor approach, and the amortization is determined by dividing the excess by the average remaining service period of active plan participants. Pacific Bell and Nevada Bell's plan to adopt this 10% corridor approach to minimize the volatility of the OPEB accrual is reasonable and appropriate.

Gains and losses for OPEB plans may result from differences associated with demographics, inflation and asset returns. Gains and losses will occur in some years but will generally offset one another. The guiding principal of SFAS-106 is the requirement that companies use a best estimate for their assumptions.

#### 6. Other Components in the Accounting Statement

Interest cost (discount rate): The APBO is measured on a present value basis. Therefore, it is necessary to reflect an interest cost associated with the increase in the APBO caused by the passage of time. This annual interest cost is determined by multiplying the APBO by the assumed discount rate. Pacific Bell and Nevada Bell use an 8.5% annual rate for discounting in their cost calculations.

Expected return on plan assets: The expected return on plan assets is calculated by multiplying the expected long-term rate of return on plan assets by the market related value of plan assets. The market-related value of plan assets is either the fair market value or a calculated value that recognizes the fair market value in a systematic and rational manner over not more than five years. Pacific Bell and Nevada Bell use 8.5% as the

expected long-term rate of return and apply this to the market related value of their bargained voluntary employees' beneficiary association ("VEBA") assets and group term life insurance assets.

Amortization of unrecognized prior service cost (if any): SFAS-106 requires the cost of benefit changes (prior service cost) to be spread over the remaining years of service to the full eligibility date for active plan participants at the date of the plan amendment. This is the methodology Pacific Bell and Nevada Bell intend to use should benefit changes arise.

If a plan amendment reduces the accumulated benefit obligation, the reduction is used first to reduce any existing unrecognized prior service cost, then to reduce any remaining unrecognized transition obligation.

Amortization of the unrecognized obligation or asset existing at January 1, 1993 (transition obligation or asset: The transition obligation or asset is determined on January 1, 1993 as the difference between the APBO and the fair value of plan assets on that date. Pursuant to SFAS-106, the transition obligation (asset) can be amortized on a straight line basis over either the average remaining service period of active plan participants or over 20 years if the average remaining service period is less than 20 years.

Pacific Bell and Nevada Bell plan to amortize their transition obligation over the average remaining service life of 15 years.

7. Bargained VEBA Contributions

Contributions for the Bargained VEBA, non-bargained VEBA, and group term life insurance are determined actuarially on a level basis by spreading the present value of future expected medical/dental or group life benefits of the participants and their dependents over the working lives of covered employees.

8. Medical Claims Rate Data

All amounts are based on 12/31/89 demographic data rolled forward. Actual 1989 claim rates have been adjusted to reflect bargained provisions. Medical claim rates after age 65 reflect medicare coverage for the retirees and their dependents.

Appendix 8 contains the Testimony of John M. Bertko of Coopers and Lybrand who reviewed the Pacific Companies' actuarial methodology and results.

V. MEDICAL AND WAGE INFLATION

The Bureau seeks information on what adjustment, if any, should be made in the exogenous adjustment to avoid double counting, since part of the growth in the GNP-PI presumably occurs due to growth in medical costs. The Bureau also asks parties to describe and quantify any wage changes which will be reflected in the GNP-PI that are expected to occur as a result of the introduction of SFAS-106. In particular, parties and

commenters should discuss what adjustment, if any, should be reflected in the exogenous adjustment for this change.<sup>22</sup>

The answers to these questions are addressed in the NERA study. Pacific Bell proposes and Nevada Bell would propose to recover only the portion of OPEB costs not already reflected in an increase to the GNP-PI, including inflation in medical costs and wages.<sup>23</sup>

## VI. CONCLUSION

For all of the foregoing reasons, Pacific Bell's Transmittal No. 1579 should be allowed to take effect as filed.

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<sup>22</sup> Investigation Order, para. 15.

<sup>23</sup> See NERA Study, p. 24.

Price cap LECs should be permitted to recover incremental OPEB costs through adjustments to the price cap formula.

Respectfully submitted,

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Date: June 1, 1992

Appendix 1  
NERA Study



**THE TREATMENT OF FAS 106 ACCOUNTING CHANGES  
UNDER FCC PRICE CAP REGULATION**

Prepared for  
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April 15, 1992

**nera**

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## THE TREATMENT OF FAS 106 ACCOUNTING CHANGES UNDER FCC PRICE CAP REGULATION

### I. INTRODUCTION AND SUMMARY

Under the theory of price cap regulation, changes in costs that are beyond the control of the firm (so-called "exogenous cost changes") are accorded special treatment. In general, changes in a regulated firm's costs should lead to changes in its prices because economic efficiency is enhanced when prices are kept close to (incremental) costs. However, the direct pass-through of all cost changes as price changes--as is done under traditional rate of return regulation--removes incentives the firm might have to control cost changes in the first place. Thus, price cap regulation permits only exogenous cost changes to affect the price cap. Incentives are preserved, and price changes follow cost changes to the greatest extent possible.

Pacific Bell is required to adopt a particular set of accounting changes--FAS 106 (Employers' Accounting For Postretirement Benefits Other Than Pensions)--no later than 1993. These changes were recently enacted by the Financial Accounting Standards Board (FASB) and have been adopted by the FCC.<sup>1</sup> Pacific is seeking recovery of the associated cost increase through a one-time Z-adjustment to its price cap to reflect (i) the amortization over 15 years of the historical liability for these benefits, and (ii) the shift from cash to accrual accounting for these benefits on a going-forward basis. Future changes in postretirement expenses would have no future effect on

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<sup>1</sup>Federal Communications Commission, "Notification of Intent to Adopt Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions," AAD 91-80, December 1991.

Pacific's price cap, except that there would be an offsetting Z-adjustment after 15 years when the historical liability is entirely amortized.

We have been asked to determine whether--and to what extent--FAS 106 accounting qualifies for treatment as an exogenous cost change under the price cap plan promulgated for the interstate services of Tier 1 local exchange telephone companies (LECs). To answer this question, we must examine three economic issues. First, adoption of FAS 106 leads to a change in accounting costs. In what sense does this change represent a change in costs that should be reflected in a regulated firm's price cap? Second, is this change in costs beyond the control of a regulated firm so that its efficiency incentives would not be diminished if the cost change were passed through in prices? Finally, what portion of this change in costs will be automatically recovered through an increase in the rate of inflation and what portion remains to be recovered through an exogenous cost change to the firm's price cap?

Our conclusions support exogenous cost treatment for FAS 106 cost changes. First, we find that adoption of accrual accounting for postretirement benefits represents an accounting recognition of proper economic costs. Prices under price caps were initially set using cash accounting for postretirement benefits. Thus a change in the price cap is necessary so that prices will reflect the economic cost of service. Second, adoption of FAS 106 accounting by the FASB and by the FCC is certainly beyond the control of the regulated firm. Moreover, a one-time adjustment to its prices to reflect the economic costs of postretirement benefits does not reduce the firm's incentive to control expenditures on those benefits. Third, because prices in unregulated markets already reflect the economic costs of postretirement benefits, adoption of FAS 106 will

not cause them to change. Hence the effect of FAS 106 on output prices is confined to the regulated sector, and we estimate its effect on the rate of growth of GNP-PI to be less than 0.12 percent per year.

## II. BACKGROUND

In December 1990, the FASB issued a formal statement, "Statement of Financial Accounting Standards No. 106" (FAS 106), acknowledging that the provision of other post-employment benefits (OPEBs) is a form of deferred compensation and that accounting for OPEBs should be changed from a cash to an accrual basis. Cash accounting, which recognizes OPEB costs only when they are paid to retirees, understates current costs and overstates future costs of employing any individual worker. If the prices of a regulated firm are set to recover book costs, cash accounting for OPEBs can lead to an intertemporal subsidy in which current ratepayers pay less than the true cost of service and future ratepayers pay more.

Implementation of accrual accounting for OPEBs in 1993 means that going forward, the OPEB liability will be recognized on the books of the company when the liability is incurred (i.e., while the employee is working and qualifying for the benefit) rather than when the liability is actually paid (after the employee retires and receives medical, dental, or life insurance benefits covered by the plan).<sup>2</sup> This liability will have several components. First, companies must account for the actuarial present value

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<sup>2</sup>In addition, FAS 106 requires that the unrecognized accumulated liability to active and retired

of future OPEBs that are associated with employees hired prior to 1993. For many companies, this liability is a large fraction of their net worth; thus FAS 106 permits companies to amortize this liability over a period not to exceed 20 years. Second, companies must recognize the expected present value of OPEBs to which active employees become entitled in a given year. Annual interest on the entire OPEB obligation is an additional expense to be recognized under accrual accounting for OPEBs. Finally, accrued costs are reduced by the actual return on qualified plan assets.

This change in accounting costs for OPEBs raises the following regulatory question: With the adoption of FAS 106 by the FCC, what is the appropriate regulatory treatment under the price cap plan of the change to accrual accounting for OPEBs?

### **III. THE THEORETICAL BASIS FOR EXOGENOUS COST TREATMENT**

In this section, we show how a Z-adjustment should be calculated in the price cap formula given that the firm has experienced an exogenous change in costs for which Z treatment is appropriate. To understand how Z should be measured, we must understand where the annual price cap adjustment formula comes from and what it is supposed to accomplish.

The purpose of the annual price cap adjustment is to insure that if the regulated firm meets its productivity growth objective, its adjusted revenues will just track its costs every year, whatever the level of inflation happens to be. In the FCC

price cap plan for Tier 1 LECs, we fix a productivity target  $X$ , annually observe inflation measured by GNP-PI, and calculate  $Z$ -adjustments whenever appropriate so that if the productivity objective is met, the allowed change in the regulated firm's price will be close to its change in costs. Thus, our explanation begins with the total factor productivity (TFP) growth objective for the regulated firm,  $dTFP$ , which represents the annual year-over-year percentage growth in the regulated firm's TFP. From the productivity growth target and the objective of having revenues track costs, we derive below the annual price cap adjustment formula used in the FCC price cap plan. Once we know how the variables GNP-PI,  $X$ , and  $Z$  in the plan are derived and what they are supposed to measure, we can interpret them in the context of FAS 106 accounting changes.

#### A. Price Cap Theory<sup>3</sup>

A basic identity in economic theory states that the rate of growth of TFP is equal to the difference between the rates of growth of the firm's input prices and output prices.<sup>4</sup> Applying this rule to the regulated telecommunications firm, we write

$$dp^* = dw - dTFP$$

where  $dp^*$  represents the annual percentage change in the telecommunications firm's output prices, and  $dw$  represents the annual percentage change in its input prices. To

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<sup>3</sup>The price cap plan for Tier 1 LECs includes a factor that accounts for non-traffic sensitive costs. We ignore this term in our discussion, since it is not part of the theoretical basis for price caps.

<sup>4</sup>We show this formally in the Appendix.

raise or lower the firm's output price in order to track exogenous changes in cost, we write

$$(1) \quad dp = dw - dTFP + Z^*$$

where  $dp$  represents the annual percentage change in the telecommunications firm's output prices adjusted for exogenous cost changes, and  $Z^*$  represents the unit change in costs due to external circumstances.<sup>5</sup> Thus, to keep the revenues of a price cap regulated firm equal to its costs despite inflation, the price cap formula should (i) increase the firm's output prices at the same rate as its input prices less the target change in productivity growth, and (ii) directly pass through exogenous cost changes.

Equation (1) looks a great deal like the annual adjustment equation in the FCC price cap plan: the allowed price change for the firm is set at a measure of its input price change less its TFP growth adjusted for exogenous cost pass-throughs. If GNP-PI were taken as a measure of the firm's input price growth and  $X$  were the firm's TFP growth target, equation (1) would indeed be the same as the price adjustment formula (apart for the adjustment for nontraffic sensitive costs). However, there are two errors in this interpretation:

1. The GNP-PI is a measure of national output price growth, not input price growth. So even if the regulated firm is a microcosm of U.S. industry, GNP-PI is not an appropriate measure of its input price growth.<sup>6</sup>
2.  $X$  in the price cap plan is a target TFP growth rate for the regulated firm relative to U.S. industry as a whole (or

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<sup>5</sup>Note that  $Z^*$  can be positive or negative.

<sup>6</sup>Recall that input price growth differs from output price growth by the growth in TFP. Only if  $dTFP^N$  were 0 could GNP-PI be a good measure of national input price growth.



relative to the TFP growth already embodied in the GNP-PI). The change in TFP in equation (1) is the absolute TFP growth for the regulated firm. Again, unless U.S. TFP growth is 0, X is not equal to  $dTFP$ .

To get from equation (1) to the price adjustment formula, we must compare the productivity growth of the regulated firm with the productivity growth of the U.S. economy. The reason for this comparison is that it is difficult to measure input price growth objectively. In particular, no competent party outside of the industry, such as the Bureau of Labor Statistics or the American Productivity Center, maintains an index of telecommunications input prices. However, by comparing productivity growth of the firm with that of the U.S. economy, the difficult measurement of input price growth can be avoided.

For the U.S. economy as a whole, the existence of effective competition implies that there are no long run excess profits, so the relationship among input prices, output prices, productivity, and exogenous cost changes can be derived for the nation as a whole in the same manner as it was derived in equation (1) above:

$$(2) \quad dp^N = dw^N - dTFP^N + Z^{*N}$$

where  $dp^N$  is the annual percentage change in a national index of output prices;  $dw^N$  is the annual percentage change in a national index of input prices;  $dTFP^N$  is the annual change in the economy-wide total factor productivity, and  $Z^{*N}$  represents the change in national output prices caused by the exogenous factors included in equation (1). If we subtract equation (2) from equation (1), we see that

$$dp - dp^N = [dw - dw^N] - [dTFP - dTFP^N] + [Z^* - Z^{*N}],$$

or

$$(3) \quad dp = dp^N - [ dTFP - dTFP^N + dw^N - dw ] + [ Z^* - Z^{*N} ].$$

Equation (3) is the theoretical equivalent of the price adjustment formula. The allowed price change for the regulated firm for a particular year is given by:

1. the rate of inflation of national output prices  $dp^N$ , (GNP-PI),
2. less a fixed productivity offset,  $X$ , which represents a target productivity growth differential between the regulated firm and the U.S. economy,<sup>7</sup>
3. plus unit exogenous cost changes, written as the difference in the unit costs of the exogenous change between the regulated firm and the U.S. economy.

Simple algebra translates equation (3) into the formula that appears in the price cap plan (again, apart for the adjustment for non-traffic sensitive costs):<sup>8</sup>

$$(4) \quad R_t = R_{t-1} \times [ 1 + GNP-PI - X ] + Z$$

where  $R_t$  represents the regulated firm's revenue in year  $t$  using base period quantities.

In words, the change in the regulated firm's output price that will just track the change in its costs, whatever the level of inflation, is equal to (i) the change in a national index of output prices, less (ii) the difference between the change in total factor productivity for the telecommunications firm and for the nation as a whole,<sup>9</sup>

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<sup>7</sup>This differential is equal to the difference between the firm and U.S. TFP growth rates only if the rates of input price growth are the same for the firm and the nation: i.e., if  $dw = dw^N$ . Evidence supporting this assumption was presented by Dr. Laurits Christensen in Appendix F of AT&T's Comments in response to the FCC's Notice of Proposed Rulemaking in CC Docket 87-313, filed October 19, 1987. According to Dr. Christensen's calculations, input cost inflation for the Bell System and for the total U.S. private domestic economy averaged 4.5% and 4.6% respectively for the years 1948 through 1979.

<sup>8</sup>The equivalence of equations (3) and (4) are shown in the Appendix to this paper.

<sup>9</sup>Adjusted for possible differences between input price growth rates for the firm and the nation.

plus (iii) the difference between the effect of exogenous changes on the costs of the telephone firm and on the costs of the nation as a whole. This equation is the foundation of the price adjustment formula in the FCC price cap plan. In this plan, GNP-PI and Z are measured annually, but X is fixed as the target amount by which the firm's TFP growth should exceed U.S. TFP growth. If the firm exceeds its productivity target, revenue growth will exceed cost growth and the firm will make higher profits. If the firm falls short of its productivity target, revenue growth will fall short of cost growth and profits will fall.

#### **B. Accounting Cost Changes in the Price Cap Formula**

Changes in the method of accounting for OPEBs will result in large changes in accounting costs. However, accounting costs are different in principle from economic costs. In this section, we examine the effects of a change in accounting costs (such as the adoption of accrual accounting) on firms in competitive markets and on regulated firms.

The single most critical economic fact in this case is that costs recognized under FAS 106 accrual accounting for OPEBs reflect economic costs. Costs recognized under cash accounting for OPEBs do not.<sup>10</sup> Two important consequences follow from this fact. First, in unregulated markets, prices already reflect the economic costs of

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<sup>10</sup>Accrual accounting for OPEBs estimates the present value of the liability for current services rendered by an employee in a given year. To measure the labor component of incremental cost (for a service), one would calculate the increase in person-hours (for different types of labor) caused by a hypothetical increase in demand. Each additional person-hour would add, to the total cost of the firm, an amount equal to the sum of wages and benefits. The cost of additional benefits to the firm caused by the additional person-hour is the present value of the liability that the firm expects to pay at some later date. That present value is the cost estimated by accrual accounting methods.

OPEBs, and the change from cash to accrual accounting will have no effect on prices in those markets. Second, in regulated markets where prices are based on accounting costs, prices do not reflect accrual accounting for OPEBs, and thus do not reflect economic costs for services. When adopted for ratemaking purposes, the change from cash to accrual accounting in regulated markets would move prices towards economic costs and would remove the intergenerational inequities embodied in the current price structure.

#### 1. Utility Prices Should Reflect Economic Costs

There is general agreement among economists and regulators that public utility prices should be based, to the extent possible, on economic costs. To an economist, such prices are desirable because they promote economic efficiency. To a regulator, cost-based prices tend to be just and reasonable because they insure that customers pay their own way, in the sense of paying at least as much for the additional service they demand as it costs to produce that additional service. Previous FCC actions (e.g., the transition towards flat-rate recovery of interstate non-traffic sensitive costs) are consistent with this pricing objective.

Moving current prices towards current costs increases efficiency and reduces an intergenerational inequity. This inequity stems from regulatory practices that inappropriately defer cost recovery into the future, reducing current prices below current economic costs while raising future prices above future economic costs. Such practices include cash accounting for pensions or OPEBs, and the use of overly long depreciation lives instead of economic depreciation lives for capital recovery. The

resulting prices are inequitable because future ratepayers are burdened with the cost of services consumed by current ratepayers. They are also inefficient because (i) ratepayers never face proper incentives for choosing among services, and (ii) utilities never face the same costs of providing OPEBs as unregulated firms.

Under the FCC price cap plan, the initial rates are taken to be just and reasonable. The FCC observed in its Second Report and Order, CC Docket 87-313, (October 4, 1990):

"...LEC interstate access rates, as they existed on July 1, 1990 and were adjusted by an Erratum, [footnote deleted] are the most reasonable basis from which to launch a system of price cap regulation," p. 97.

These initial rates reflect cash accounting for OPEBs. Thus, the price cap index must be adjusted to align prices under price caps with economic costs.

## **2. Accrual Accounting Costs for OPEBs Are Economic Costs**

The economic costs of hiring an additional worker are given by the sum of wages paid and the present value of expected pension and OPEB expenses for that worker. OPEB expenses measured under cash accounting are of no use to a manager trying to decide how many workers to hire or what mixture of salary and benefits to offer. They are irrelevant because expenses for OPEBs under cash accounting are determined by the medical experiences of people who are not currently working. In unregulated markets, managers hire workers until the value of the additional output of the last worker just equals the additional cost of hiring that worker. The cost of hiring a worker is the sum of the costs of wages, pensions, and OPEBs. Competitive

pressures prevent managers from treating the costs of pensions and OPEBs as anything other than the present value of the expected cost of that benefit.

### **3. Prices in Unregulated Markets Reflect Accrual Accounting for OPEBs**

In economic theory, a firm that used cash accounting for OPEBs in making decisions could not survive in competitive markets. Today--when cash accounting costs for OPEB are low--the firm would hire too much labor, include too large a component of OPEBs in its compensation offers to prospective employees, and price its products below their profit-maximizing levels. In the future--when cash accounting costs for OPEBs are high--the firm would hire too little labor, include too small an OPEB component in its compensation mix, and price its product above the true profit-maximizing level. As competitive forces move prices towards incremental cost, prices could no longer reflect cash accounting for OPEBs.

Even in unregulated but non-competitive markets, output prices would still reflect accrual accounting for OPEBs rather than cash accounting. An unregulated monopolist that used cash accounting for OPEBs in making decisions would also hire the wrong amount of labor, offer an inefficient mix of wages and benefits, and price its product incorrectly. If unregulated monopolists manage their affairs so as to maximize economic profits, their input decisions and output prices will reflect accrual accounting for OPEBs. Thus a change in accounting standards from cash accounting to accrual accounting for OPEBs should not change prices in unregulated markets, irrespective of the degree of competition in those markets.

Empirically, there is abundant evidence showing that shifts in accounting standards have negligible effects on firms in unregulated markets. A search of the empirical literature (see Section IV) examining the effects of the 1987 FASB change in the method of accrual accounting for pension benefits revealed no evidence linking stock prices and pension accounting changes. Thus in unregulated markets, additional OPEB accounting costs have been recognized by the corporations in prices and by financial analysts as a liability of the firm. The accounting recognition of these costs, therefore, has no impact on the financial situation of the firms. Accounting costs, however, have determined prices for regulated firms, from which we conclude that OPEB expenses are currently (before adoption of FAS 106) treated differently for pricing decisions by managers of regulated and unregulated firms.

#### **4. Cash Accounting for OPEBs Distorts Competition in Labor and Telecommunications Service Markets**

Regulated and unregulated firms compete for workers in the labor market, and with prices set by cash accounting for OPEBs, regulated firms face different incentives to offer wages, pensions, and OPEBs to workers than those of unregulated firms. With competition for telecommunications services, the consequences of this distortion are even greater. Price limits for regulated firms in competitive markets today are set through a price cap formula whose starting point was based on cash accounting costs for OPEBs. Competitors' prices are determined by their economic

costs which include OPEB costs as measured by accrual accounting.<sup>11</sup> As interstate access services become more competitive, it is essential that regulatory distortions in pricing be removed.

While any departure from economic costs sends the wrong signals to ratepayers, the adverse consequences are much greater when a utility faces growing competition. In the case of a monopoly utility, the inappropriate deferral of cost recovery produces prices that are too low early on, but too high later. These price signals will cause too much service to be consumed in the earlier period and too little later on. However, for the amount of service provided in each period, there is no reason to believe that the utility's incentives to produce efficiently are distorted.

When regulated markets are opened to competitive entry, the inefficiencies from inappropriate timing of cost recovery become more important. There are two reasons for this observation. First, since true economic costs play a crucial role in the terms and conditions for competition, any deviation from true economic cost in the measurement of the incumbent utility's cost can distort the competitive process. For example, if the price floors for competitive services are based upon inappropriate cost recovery assumptions, they could be too low in an early period and too high later on. Such an outcome could frustrate the objective of the most efficient firm being able to provide competitive services.<sup>12</sup>

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<sup>11</sup>This phrase should not be taken to imply that Pacific Bell's competitors will quickly move to fund OPEBs or to change their prices when they change their accounting. In unregulated markets, prices are set by the market and by the level of economic costs. Irrespective of accounting conventions, economic forces will drive the firm's prices towards a level consistent with accrual accounting for OPEBs.

<sup>12</sup>The incremental cost for a given service includes as a labor component, the accrued OPEB expenses associated with the labor needed to provide that service, but it does not include any of the historical costs that arose from deferring recovery of costs associated with previously provided services.



Second, with competition and incentive regulation, the FCC can no longer guarantee recovery of deferred costs. In particular, the utility is at risk for the recovery of the historical liability under incentive regulation. Failure to adjust price ceilings to offer the utility the opportunity (1) to cover these historical costs and (2) to recover the economic costs of ongoing operations under competition raises the real possibility that the utility will never fully recover legitimately incurred costs of service.

## 5. Conclusion

To have a perceptible economic effect, an accounting change must cause a change in some prices in the economy. In competitive markets, prices are determined by the interaction of customer wants (demand) and costs of production (supply). A change in accounting convention clearly has no effect on customer demands. If accounting changes are to affect prices at all, they must affect the economic cost of producing goods and services and thus the amount that firms are willing to supply at a given price. Economic theory teaches that firms make supply decisions on the basis of economic costs, not accounting costs. When a profit-maximizing firm decides whether or not to hire an additional worker, it weighs the value of the additional output the worker produces against the additional cost that hiring the worker entails. If the compensation package for a worker includes OPEBs, a profit-maximizing firm would include the expected present value of OPEB costs as a cost in its hiring decision. A firm which ignored OPEB costs would hire too many workers and would experience higher than minimum costs in the long run. A competitive firm that made hiring decisions based on cash accounting figures for OPEBs would hire too many workers today (when its pool of accumulated retirees with OPEBs is small) and too